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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,739	08/03/2001	Zbigniew Michalewicz	07100005AA	5937

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EXAMINER

HWANG, JOON H

ART UNIT	PAPER NUMBER
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2172

4

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,739

Applicant(s)

MICHALEWICZ ET AL.

Examiner

Joon H. Hwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The pending claims are 1-17.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 6-7, 11-12 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al. (U.S. Patent No. 6,675,159).

With respect to claim 1, Lin discloses providing a query (lines 28-35 in col. 9). Lin discloses creating a query pattern from an analyzed query (lines 56-67 in col. 8, lines 1-2 in col. 9, lines 48-54 in col. 9, lines 13-16 in col. 10, lines 6-16 in col. 14, and lines 60-65 in col. 20). Lin discloses searching the document source for documents which match the query pattern (line 66 in col. 18 thru line 11 in col. 19 and line 66 in col. 20 thru line 5 in col. 21). Lin discloses dividing the retrieved documents into subsets of similar documents, where each subset of the subsets of similar documents is described in terms of a subset pattern (lines 26-40 and lines 51-59 in col. 13). Lin discloses providing an ordered list of clusters based on the subset pattern of each subset of similar documents, wherein the ordered list of clusters includes separate clusters which

contain similar documents retrieved in response to the query (lines 30-42 in col. 12, lines 26-59 in col. 13, and line 65 in col. 17 thru line 8 in col. 18).

With respect to claim 2, Lin discloses the separate clusters are provided to a user (lines 26-59 in col. 13 and lines 12-39 in col. 19).

With respect to claim 6, Lin discloses searching includes parsing and interpreting words or documents in the document source (lines 48-54 in col. 9, line 62 in col. 10 thru line 3 in col. 11, lines 11-19 in col. 12, lines 52-59 in col. 18)

With respect to claim 7, Lin discloses performing off-line searches for unanswered user queries and notifying a user when a match is found (lines 46-50 in col. 7) concerning the query is transformed into an event.

With respect to claim 11, Lin discloses the user-specified maximum number of documents (lines 22-27 in col. 19), which can be used for limiting the number of document displayed.

With respect to claim 12, Lin discloses the list of topics ranked and the system decides to choose a number of topics (lines 3-8 in col. 18), which teaches limiting the number of clusters. Lin also discloses the system predefines a set of topics (lines 10-15 in col. 24 and lines 30-35 in col. 25).

The limitations of claims 14 and 17 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

With respect to claim 15, Lin discloses performing off-line searches for unanswered user queries and notifying a user when a match is found (lines 46-50 in col. 7) concerning creating an event from the analyzed query.

With respect to claim 16, Lin discloses a means for controlling information from and to a user interface (fig. 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Patent No. 6,675,159) in view of Chundi et al. (U.S. Patent No. 6,502,091).

With respect to claims 3 and 4, Lin discloses user logs (lines 10-27 in col. 9). Lin does not explicitly disclose providing a log for each cluster. However, Chundi discloses a log for storing information, such as the number of document that match the query, the list of opened document identifiers, the query, and other similar information, for each retrieval session (lines 25-39 in col. 4, lines 55-67 in col. 5, lines 64-67 in col. 6, and lines 39-45 in col. 3). Chundi discloses the log is effectively exploited in order to bridge the gap between the keywords used to express the user's problems and the document that are relevant to the problems (lines 25-39 in col. 4). Chundi discloses discovering document categories by analyzing the log (lines 39-45 in col. 3). These teach the log is provided after the user retrieves one of the clusters and the log is provided for each cluster. Therefore, based on Lin in view of Chundi, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the log of

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Chundi to the system of Li in order to retrieve more relevant documents to a query by analyzing the log.

With respect to claim 5, Lin discloses the user retrieves documents from the clusters (lines 26-59 in col. 13 and lines 12-39 in col. 19).

6. Claims 8-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Patent No. 6,675,159) in view of Liddy et al. (U.S. Patent No. 6,006,221).

With respect to claim 8, Lin discloses creating predicate structures containing keywords for a query pattern (lines 14-17 in col. 10, lines 20-30 and lines 60-63 in col. 20, lines 6-16 in col. 14, and line 56 in col. 8 thru line 2 in col. 9). Lin discloses a logical query (line 61 in col. 6 thru line 10 in col. 7). Logical operators, such as AND, OR, and NOR, in a query are well known in the art of database field. And yet, Lin does not explicitly disclose Boolean functions. However, Liddy discloses analyzing a user-entered query and constructing a logical representation of the query by using Boolean functions (line 22 in col. 17 thru line 29 in col. 18 and fig. 7) for a query pattern. Therefore, based on Lin in view of Liddy, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Liddy to the system of Lin in order to utilize logical operators in a search query for retrieving desired information from a database.

With respect to claim 9, Lin discloses indicating whether an input document is relevant (true) or irrelevant (false) to a domain in order to identify an input query's topic

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(lines 6-16 in col. 24). Also a set of documents retrieved based on a query teaches the query represent those documents since those documents are "true" (matched) for the query.

With respect to claim 10, Lin discloses predicates contains a plurality of keywords (lines 20-30 and lines 60-63 in col. 20 and lines 6-16 in col. 14) concerning the query pattern is defined as any set of words.

With respect to claim 13, Lin discloses expanding a query to include synonyms, instances, and parent concepts (line 56 in col. 8 thru line 2 in col. 9) to retrieve similar documents in a database. Lin discloses retrieving similar documents based on a seed document (lines 12-39 in col. 19). Lin discloses creating predicate structures containing keywords for a query pattern (lines 14-17 in col. 10, lines 20-30 and lines 60-63 in col. 20, lines 6-16 in col. 14, and line 56 in col. 8 thru line 2 in col. 9). Lin discloses a logical query (line 61 in col. 6 thru line 10 in col. 7). Logical operators, such as AND, OR, and NOR, in a query are well known in the art of database field. And yet, Lin does not explicitly disclose such logical Boolean functions. However, Liddy discloses utilizing Boolean functions in a query to form a logical representation of the query (line 22 in col. 17 thru line 29 in col. 18 and fig. 7) in order to retrieve documents. Therefore, based on Lin in view of Liddy, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Liddy to the system of Lin in order to utilize logical operators in a search query for retrieving desired information from a database.

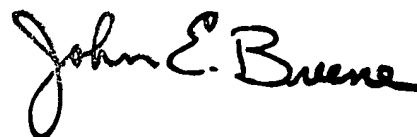
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 703-305-6469. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang
4/1/04



JOHN BREENE
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